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# METALLIC LIBRARY FURNISHINGS



ART METAL  
CONSTRUCTION CO.  
JAMESTOWN N.Y.









# METALLIC BOOK STACKS AND FURNITURE FOR LIBRARIES



## ART METAL CONSTRUCTION CO. JAMESTOWN, N.Y.

JAMESTOWN, N.Y.

FACTORIES

ST. LOUIS, MO.

NEW YORK.  
WASHINGTON.

BRANCH OFFICES  
CHICAGO. BOSTON.  
INDIANAPOLIS.

CINCINNATI.  
DETROIT.  
ST. LOUIS.



Burlington, Ia.

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BY THE ART METAL CONSTRUCTION CO.,  
JAMESTOWN, N. Y.

## EXPLANATORY.

WE ARE manufacturers of a special line. It is that of Fine Interior Metallic Fixtures. It is a broad line, but as distinct as it is broad.

We have made a study of this line. We aim to be leaders in it. We have therefore confined our attention strictly to it. We are not jobbers of miscellaneous library supplies. We build *complete* furnishings for libraries in METAL: stacks, fixtures, and furniture.

This line is indispensable to the correct equipment of modern library buildings. Indispensable, because it stands for permanency, for security, for utility, and for beauty. Library buildings have not only increased in numbers but gained in construction. Steel, in the production of which the United States now leads the world, has played the most important part in the latter advance. Its use in interior work has kept pace with its employment for structural purposes. We go on where the builder leaves off. Interiors and exteriors are built in harmony, both from an architectural and constructional standpoint.

Our Interior Metallic Fixtures are made chiefly of fine steel plates, built either plain in design or with rich ornamental bronze effects. They are finished in enamel, lacquer or electroplate, as required.

Book Stacks are a leading feature of this line. In the production of a number of forms of shelf construction, our first aim has been to suit the individual requirements in each case. The construction is defined by utility, not by a set "system." Our testimonials of its success are our work.

Working in wrought metal, we are restricted by no stock patterns. We have the extensive and special machinery necessary for the duplication of wrought parts. We employ over six hundred men, trained for years in the best methods of work. We have exceptional facilities for designing and detailing.

Our patrons share in these advantages.

Our illustrations are of work in use. They present *results*, not claims.

We have aimed to present herewith, not only our own work but also other detail of interest to Architects and Librarians.

We solicit an opportunity of presenting plans and estimates for any library work desired.

ART METAL CONSTRUCTION CO.,

Jamestown, N. Y.

## STACK ROOMS.

### PRIMARY REQUISITES.

**T**HE ideal stack room should be a book vault, with floor, walls, and roof fireproof, door and window trim of metal. Connecting openings should have metallic doors or curtains. Windows facing narrow streets or adjacent buildings should be protected, preferably by coiled curtains, secured with fusible plugs. ALL interior fixtures should be non-combustible.

Natural light should be admitted to all parts of the stack, windows with single sashes being located at cross aisles. Stacks more than three stories high may use skylights to advantage. If these are made double, of clear and ground glass, a more equable temperature will be maintained in upper stories.

Artificial light should be electric, with wires run in concealed conduits. If intermediate floors are of glass, lights may be connected to light each side aisle from both above and below simultaneously. Switches should be located *directly* in aisles to be lighted.

Ventilation should be ample, but without rapid change of air. This method and direct heat radiation decrease stirring up of dust. All air introduced should be carefully screened. In large stacks out-takes may be placed near the floor at each story, the upper ones preferably larger; these connected with exhaust fans will serve to keep *down* the dust. Openings in floors should occur in front of all shelf ranges.

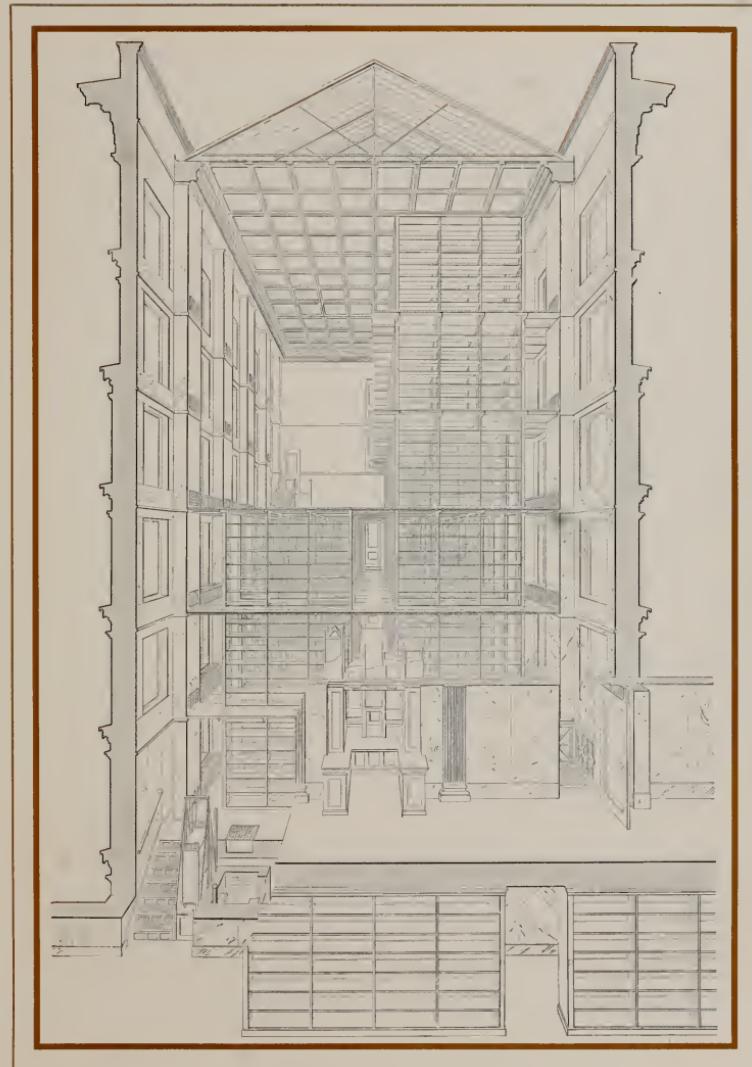
Provision should be made for the ready removal of dust. All surfaces should be plain, smooth, hard, rounded and readily cleaned with damp cloths. Walls, if possible, should be enameled brick, tile or marble. Intermediate floors should be dust- and water-tight. The first, or main floor, should be tile or marble; cement floors under wear constantly throw off dust; wooden floors retain it. Dust closets for books, and washbasins, may be introduced on each floor. All windows should be locked.

The connection of delivery rooms and book stacks should have *early* consideration; the more direct their relation, the better. Lifts should connect intermediate floors. Contracts for stack work should precede those for electric lighting.

We illustrate a Stack Room that represents a thorough study of the above requirements.



Rear of Stack House, Providence, R. I., Public Library.  
Stone, Carpenter & Wilson, Architects.



BOOK STACKS—PROVIDENCE, R. I., PUBLIC LIBRARY.

(Delivery Rooms and Basement Stack in Foreground.)

Elevator—Dust Closet—Distribution Desk and Lifts—Fireproof Door—Ventilation.

## METALLIC BOOK STACKS.

### CONSTRUCTION: "STANDARD" STYLE.

**T**HIS construction was designed to fully meet the requirements mentioned on preceding page, and is as follows:

The supporting columns, spaced each shelf length and located at the axis of the ranges, together with floor bars and attached framing, are constructed of rolled or formed steel sections. The shelf uprights, or partitions, winged out from supporting columns, are built of steel plates, made smooth by pickeling and cold rolling. Each upright is formed entire from a single plate into an extremely rigid "U"-shaped channel of the depth of the shelf. It has a rounded front, and is slotted at regular intervals on both sides to receive the shelves.

The shelves are formed entire from single steel plates, stiffened at front and back by a smooth turned roll fitted to receive book supports. Each end is made with a half-inch projecting bearing, the shelf being supported in the slots directly by the upright, without any intermediate part. The "one-piece" wrought upright and the "one-piece" plate shelf form the whole combination. Label Holders are provided, where desired.

The floors are made of steel frames fitted with glass, marble, or iron. They are dust- and water-tight, and have openings next to side aisles, protected by neat raised curbing. Treads of stairs have sinkages for rubber matting.

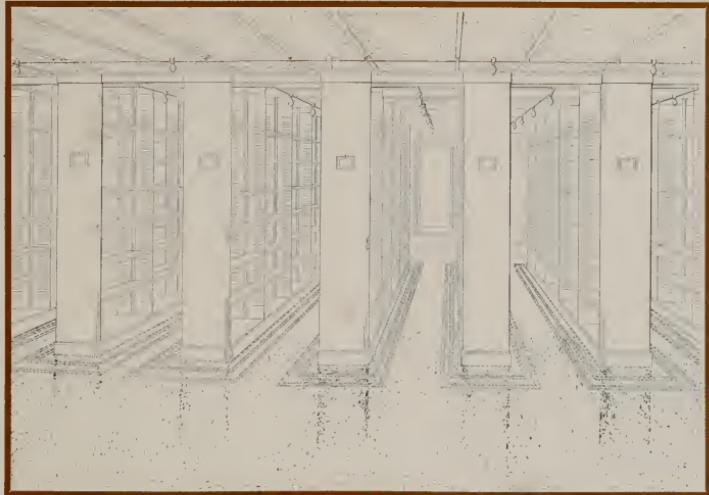
Cornices and bases with plain steel moldings are provided, and tops of cases protected by metal top-plates.

The ends are entirely plain and smooth, with rounded edges. Where preferred, they may be paneled. The finish is a durable baked japan; exposed exterior parts are rubbed to a dead surface; interior parts coated with a special enamel, having the surface of fine leather and the hardness of glass.

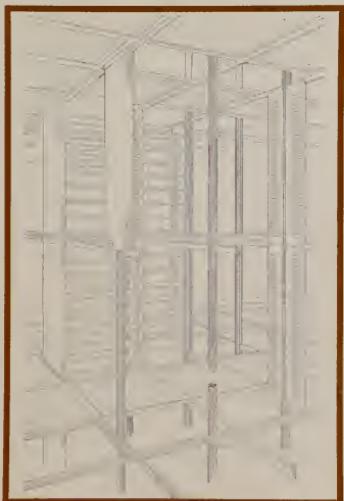
Standard dimensions are: height, 7 feet, or 7 feet between floors. Shelves, 3 feet long. Stack ranges, any multiple of this, up to 15 feet. Shelves, 8 inches wide. 12-inch shelves should be put in separate cases. Sliding shelves obviate necessity for ledges. Side aisles are (minimum) 2 feet 6 inches; main aisles, 3 feet.



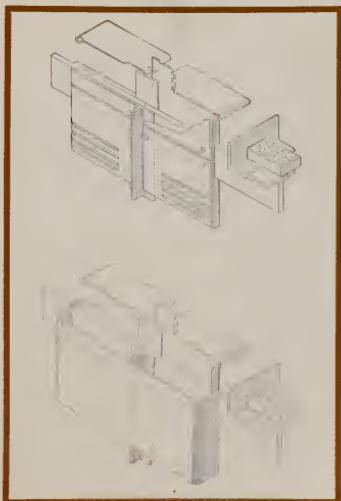
"Standard" Stack in Process of Construction.  
Chicago Public Library.



View First Floor.



Detail of Framing.



Detail at Middle Upright.

Detail at End Upright.

CONSTRUCTION "STANDARD" BOOK STACK.

## METALLIC BOOK STACKS.

### ADVANTAGES "STANDARD" STYLE.

**T**HE "Standard" type is the only metallic shelving constructed that admits the shelf from the front directly into the upright without vertical opening between the two to catch book covers, projecting teeth at front of upright, destructive lugs on the side, or movable hangers. It is the only construction that approaches the ideal requirements of library shelving, and the one that has won the most solid recognition from the date of its introduction.

Its construction is best suited to all conditions; is that most rigid for one-story stacks, requires no unsightly bracing, and secures the greatest economy of room with a maximum strength in a minimum space.

It is made in the best form; has absolutely smooth, rounded and continuous surfaces, that offer the least wear to books and lodgment for dust, and are most readily cleaned.

Its finish is best suited to hard wear; does not retain dirt and is unaffected by moisture. The coating of the shelving is a process special with us.

Its adjustment is the simplest, therefore the easiest; has no loose parts; requires no tools and secures positively level shelves.

Its shelves do not warp, bind, twist, split, shrink, or swell. Arguments for metal standards are arguments for metal shelves.

It has solid ends, positively excluding direct sunlight and dust from books.

Its material and construction are the most durable.

It is entirely incombustible.

We supply ALL interior Fixtures for Stack Rooms.



"Standard" Shelf in use.  
Norwood, Mass.



"Standard" stack

Public Library, Niagara Falls, N.Y.

Manufactured by

Art Metal Construction Co.

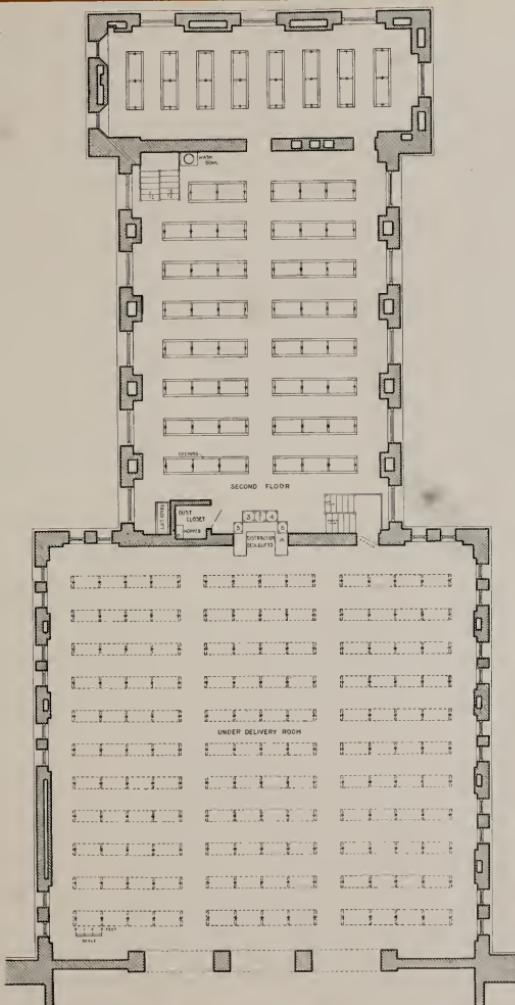
Jamestown, N.Y.

FLOOR PLAN—STACK ROOMS. FLOOR PLAN IN ELEVATION

Delivery Room Floor Level.

a. One-Story Stack under Delivery Room.      b. Six-Story Main Stack.      c. Two-Story Stack in Rear.





FLOOR PLAN - STACK ROOMS, PROVIDENCE, R. I. PUBLIC LIBRARY.

Delivery Room Floor Level.

a. One-Story Stack under Delivery Room.

b. Six-Story Main Stack.

c. Two-Story Stack in Rear.

## EXAMPLES OF METALLIC STACK WORK.

PARALLEL RANGES. PROVIDENCE, R. I., PUBLIC LIBRARY.

**T**HE stack house and fittings of the above library illustrate the advanced ideas on library equipment adopted in all parts of this new structure.

Both from an architectural and utilitarian standpoint it represents a careful study of the whole problem of library building. With fixtures and land, it cost about a half a million dollars.

There are three book stacks: One, of one story, below the delivery room floor; one, of six stories, directly in the rear of delivery room; one, of two stories, under the special study rooms at rear of stack house. Together they accommodate some 225,000 volumes. The perspective on page 7 shows two stack rooms.

The stack house is fireproof; door and window trim metal, walls white marble. It has direct heat radiation on every floor, indirect on the first floor and an exhaust system of ventilation. It is lighted from the sides, and also by a skylight. The electric lighting is so arranged that aisles are lighted from overhead and through the glass floor beneath simultaneously.

*All* the fixtures are incombustible. The stack work is the "Standard" style. The floors are glass and iron. The work is entirely plain; ends are perfectly smooth except for single hook holding label card. The finish is a quiet light shade of baked japan. Ingenious sliding shelves for books are provided, as shown in view of cross aisle.

Book Lifts run to all floors, being directly connected with the delivery room in a group around distribution desk. Each lift works independently, automatically opening the door in lift shaft at each floor and ringing an alarm. A separate electric elevator is provided for book trucks.

The above library is preëminently one for *use*. Its stack house and equipment were planned directly with this in view. Together they present one of the finest examples of its kind in the United States.



Providence, R. I., Public Library.  
Stone, Carpenter & Wilson, Architects.  
(Permission "Am. Architect and Building News.")



Center  
Aisle,  
Second  
Floor.



Lifts and  
Metallic  
Distribution  
Desk.

Cross Aisle,  
showing  
Sliding  
Shelf.

## EXAMPLES OF SPECIAL FIXTURES FOR STACK ROOMS.

PROVIDENCE, R. I., PUBLIC LIBRARY.

**F**REEDOM from dust means better sanitation as well as increased life for books, and is desired by all librarians. Dust on floors or shelves is readily removed, that precipitated on books not so easily.

An effective device for this purpose, introduced in the stack room in the above library, is illustrated below. It consists of a closet fitted with a hopper for receiving dust and dirt. The books are rapped together sharply or brushed above the hopper, the dust being drawn into it and connecting dust shaft by an exhaust fan and finally discharged into the air outside. The draught is regulated electrically. One of these closets is located on each floor of stack near the main aisle. They are independent in their operation.

Lockers for storing the clothing of attendants also involves the question of sanitation and cleanliness. Wooden lockers grow musty, are not readily cleaned, and are frequently the starting place for fires. Metallic wardrobes are the reverse; they absorb no moisture from damp clothing, are perfectly ventilated, collect no microbes, are incombustible and always free from vermin. A section in use is illustrated opposite.

Fireproof Doors are necessary at all openings from stacks to adjoining rooms. Frequently large sums are expended in making stack rooms fireproof, while doorways leading to rooms filled with inflammable fixtures are fitted with wood. One public library lost its books from having a metal door in a *wooden* frame.

The necessity for protection at these points is obvious. Our theory of stack-room equipment contemplates excluding all fire from *without* and supplying no combustible material *within*. When adopted, it renders any discussion of books burning on steel shelves superfluous.

We illustrate herewith this theory reduced to practice.



Fireproof Door,—Stack Room.  
Providence, R. I., Public Library.



Metallic  
Lockers.



Dust Closet  
and Hopper.



Electric  
Book Lift,  
Sixth Floor.

## EXAMPLES OF METALLIC STACK WORK.

### PARALLEL RANGES. CHICAGO, ILL., PUBLIC LIBRARY.

THE new Chicago Public Library building, notable for its dignified and beautiful exterior and the convenience and elegance of its interior treatment, is another representative structure fitted with our "Standard" Stacks. The building and equipment cost about two million dollars.

In the study of its design and arrangement, special attention was given to the primary requisites of a metropolitan library building, one of which was—"Ample and compact storage of books near the delivery room." Architecturally, the stack rooms are employed as a background for the latter. The effectiveness of this treatment has been enhanced by the fine color scheme of stack work, in shades especially prepared by Tiffany of New York. The fundamental fact, that, above all, the library is a home for books, is at once made prominent, while the greatest accessibility to these volumes is secured. Seventy-five per cent. of those most called for are on a level with delivery room, and handled without any mechanical appliance whatever.

The "Standard" stack construction has been adopted for all stack rooms equipped. Together they have a capacity of about 400,000 volumes. All their interior fixtures are incombustible, the ground floors tile, the intermediate decks of glass and iron. A most effective installation of electric lighting was introduced by this Company, which has since been followed extensively elsewhere. Rolling steel shutters are provided between delivery and stack rooms. Electric book lifts connect all floors. In short, security, utility, and durability have been attained throughout.

Additional views of this work will be found on pages 47 and 49.

The recent purchase of an additional three-story "Standard" Stack, identical with three others in use for the past four years, is a substantial endorsement of this type of shelving.



Chicago, Ill., Public Library.  
Shepley, Rutan & Coolidge, Architects.



Side Aisle  
Delivery  
Floor.



Delivery  
Room and  
Stacks from  
Rotunda.

"STANDARD" STACKS—CHICAGO PUBLIC LIBRARY.

## EXAMPLES OF METALLIC STACK WORK.

### COURT STACKS. PHILADELPHIA CITY HALL LAW LIBRARY.

**A**S FINE an example of art in Plate Metal as exists in the United States may be seen in the elegant Law Library in the new City Buildings, Philadelphia. It exhibits, also, a different type of stack, the ranges being grouped around a central court, with alcoves for study on both sides.

In design and construction, the entire work is a distinct revelation of how effectively the largest interiors may be entirely fitted with non-inflammable fixtures in a rich and attractive manner. The detail, construction, and ornament were wholly from our own plans, and are harmonious throughout.

The interior shown is 71 x 59 feet and 30 feet high. With the exception of the chairs and thin tops to desks, the *entire* fittings and furniture, including partitions, desks, tables, closets, etc., are of metal, all fine wrought work. It is a product possible only with those possessing the most complete facilities for both heavy structural and fine metallic cabinet work, with the experience and skill necessary for their combination. A study of the following views will illustrate the adaptability of our "Standard" construction to all conditions, particularly to those involving miscellaneous fittings and adjacent cabinet work.

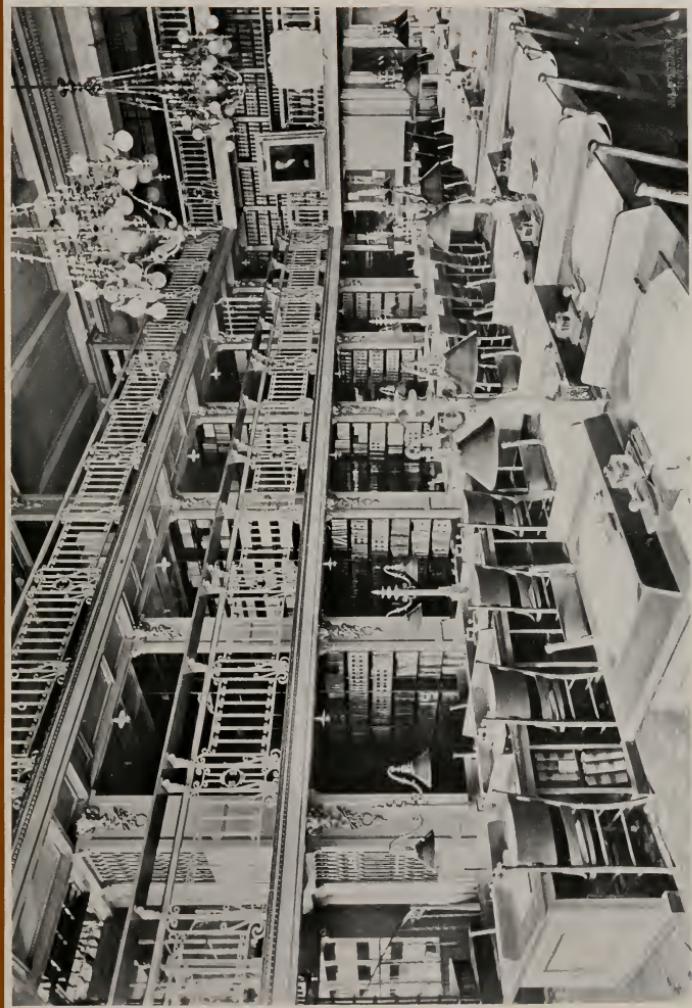
The advantage of having Library Interiors completely fitted in metal was signally illustrated by the present example. A large amount of scaffolding and wooden fixtures had been temporarily placed in a large corridor in front of the entrance to library. A fire broke out in this as the work was nearing completion and, occurring at night, acquired considerable proportions before it was subdued. Had the fixtures in library been of wood it would have been extremely difficult to have prevented a clean sweep through so large a compartment. Being of steel, the fire made no progress in that direction.

"Fire Prevention" rather than "Fire Protection" is the true theory in the use of metallic equipment. No "starting point" for fire precludes any danger from it.

The above building contains over ONE-HALF MILLION DOLLARS' worth of our Metallic Fixtures.



New City Buildings, Philadelphia, Penn.  
J. Mc Arthur, Architect.



"STANDARD" STACK, LAW LIBRARY, PHILADELPHIA CITY HALL.

## EXAMPLES OF METALLIC STACK WORK.

### DETAILS OF WORK. LAW LIBRARY, PHILA.

ONE of the most interesting features of the above work is the treatment of the heavy framing portions next the court. The latter is surrounded by galleries, on the sides, supported by cantilevers. These, with the large supporting columns and the beams in floors, have been carefully cased in cabinet work of steel; where the lighter structural parts have been left exposed, their finish has been brought into harmony with connecting work. Facias to galleries and cornices show the same effective combination of strength and elegance. This has been heightened by the introduction of lines of bronze moldings. Soffits and the under side of gallery floors are treated in a similar manner; they are also relieved by the use of bronze corbells and corner-leaf ornamentation. The ends of the cases are heavily paneled and richly decorated with a series of beautiful ornaments, treated as supporting elements for the cantilevers overhead. These ornaments are in real bronze, symbolical of the law, each with a different motif: "Wisdom," "Justice," "Punishment," etc.

An equal harmony between structural parts and metallic case work is shown in the Librarian's Room. The heavy framing of ceiling is cased in steel, and the panels of fine plate glass are set in bronze frames.

The finished execution of all these features equals their beauty of design. Panels are cut from solid steel plates, without joints at stiles and rails. Plates are accurately mitered at the corners of cases; applied bronze moldings and ornaments have faces entirely free from screws or rivet heads.

In short, the entire product represents the skill of artisans trained for years in this special class of work. The detail throughout will be found especially interesting to architects.

The finish is a rubbed japan in a cool shade of light green, the bronze work being in old gold.



Librarian's Room, Law Library, Philadelphia City Hall.



Alcove and  
Metallic  
Tables.



Under  
Gallery.



Assistants'  
Metallic  
Desk.

METALLIC STACK AND CABINET WORK, LAW LIBRARY, PHILADELPHIA.

Facia to  
Gallery.



Cornice  
and Lift,  
Top Floor.



Metallic  
Desks.



Ends of  
Cases.



METALLIC STACK AND CABINET WORK, LAW LIBRARY, PHILADELPHIA.



Metallic  
Periodical  
Case.



Metallic  
Telephone  
Closet.



Bronze  
Ornamenta-  
tion under  
Cantilevers.

METALLIC STACK AND CABINET WORK, LAW LIBRARY, PHILADELPHIA.

## EXAMPLES OF METALLIC STACK WORK.

### STACKS AS BACKGROUNDS. FAIRHAVEN, MASS.

THE attention of architects is respectfully directed to the opportunities for the attractive use of book stacks, particularly in smaller libraries, as attractive backgrounds for delivery rooms. The possibilities in this direction have not hitherto been entirely utilized, the high standards attained in fine metallic cabinet work not being fully known. Books, massed in attractive shelving, form the finest possible reliefs for public rooms. Ornamental metallic stack work solves the problem of securing architectural effects with complete security. The stack rooms may be entirely fireproof, even if remainder of building is not, their contents fully protected by sliding doors, concealed in pockets in dividing walls.

The work in above library illustrates the treatment suggested, and is another example of original design in the construction of our "Standard" stack. It demonstrates clearly how readily work built to order may be given an individual character, where the question of cast parts or stock patterns is eliminated. The stack shown is built of wrought plates, the trim, railing of gallery, and ornamentation real bronze. The under side of gallery floor is ceiled in Italian marble, the bases to cases dark native marble. An additional view, showing detail, will be found on page 49.

We have already cited the Chicago Public Library as a prominent example of the above treatment on a large scale. The James Library, Madison, N. J., and the Burlington (Ia.) Public Library are also additional examples illustrated. On application, we will forward additional data relating to this treatment of library interiors.



Millicent Memorial Library, Fairhaven, Mass.  
Charles Brigham, Architect.



View  
Toward  
Delivery  
Room.

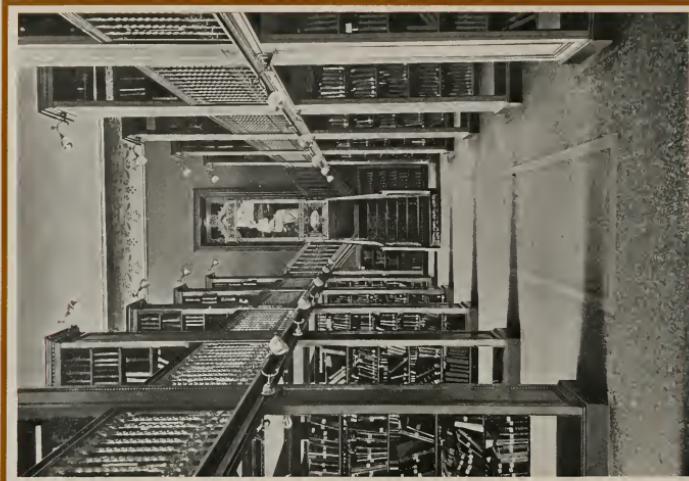


Upper Cases  
and Bronze  
Brackets.

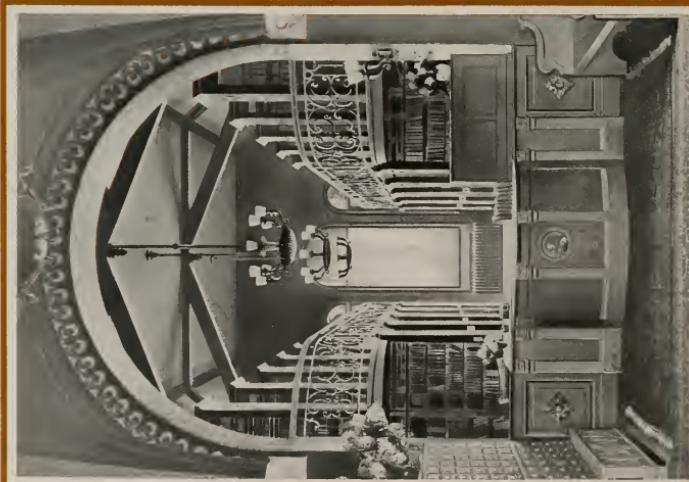


Ends  
Lower  
Alcoves.

ORNAMENTAL STACKS, BACK OF DELIVERY ROOM, FAIRHAVEN, MASS.



Burlington, Ia.



Madison, N. J.

STACKS AS BACK GROUNDS.



STACKS AS BACK GROUNDS, MADISON, N. J.

## EXAMPLES OF METALLIC STACK WORK.

### ONE-STORY STACKS. NORWOOD, MASS., BUFFALO, N. Y., AND ERIE, PA., LIBRARIES.

**F**OR one-story stacks no construction is better adapted than the "Standard," both from the point of attractiveness and strength. It presents a finished appearance, and may be placed in any part of the room, as shown by illustrations. The Erie work is constructed to eventually carry a second story, the removable cornices to be placed on upper cases.

Too much attention cannot be paid to the selection of first-story stacks. The cheapest may eventually prove the most expensive. Officials should make certain the construction proposed is really adequate for future extension. The reliability of manufacturers and their ability to guarantee the supply of additional work of the same type in the future are obviously important considerations.

Librarians will find it advantageous to procure and put on file plans showing exactly future work contemplated; the construction proposed to accommodate it, and the location of prospective stairways and galleries. Also they should make certain that first-story cases are fitted with adequate supports for the special framing that will be necessary at these points.

Employing a competent engineering force in this line, we shall be happy to supply plans of this character, on application, without expense.

The Buffalo, N. Y., Public Library presents an example of one-story stack work, designed purely for storage purposes, and without view to extension. The construction is illustrated on page 31. In use, it has proved very satisfactory.

We have built a number of stacks of the type shown in the Norwood, Mass., interior (known as the Morrill Memorial Library). The ornamentation is in bronze and it is a finished piece of work.



Erie, Pa., Public Library.  
Alden & Harlow, Architects.



Library,  
Norwood,  
Mass.



Public  
Library,  
Erie, Pa.



Public  
Library,  
Buffalo,  
N. Y.

ONE-STORY BOOK STACKS.

## METALLIC BOOK STACKS.

### CONSTRUCTION "ALL WROUGHT" BRACKET STACK.

**T**O meet the wants of special cases, we have designed a light form of shelving, known as our "All Wrought" Bracket Stack.

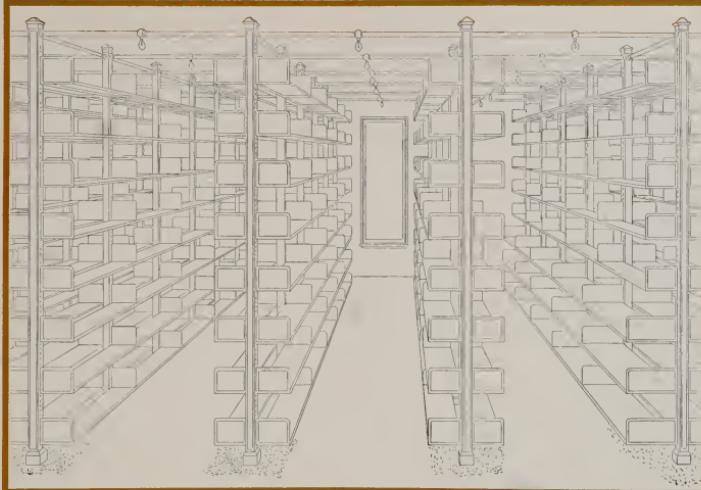
In its production, the same primary requisites governing the "Standard" have been kept in view. Simplicity of construction and complete freedom from repairs have been secured. The "All Wrought" Bracket style represents a distinct advance in this form of shelving and is the best of its class.

The "All Wrought" Bracket Stack is constructed simply with a central standard, supporting winged bracketed shelving. The supporting standard is built of steel plates formed into a box column. Its top is fitted with an iron cap to carry floor framing, and one or any number of stories may be superimposed, the columns being reinforced for this purpose as required. Its surfaces are slotted to receive the bracketed shelving.

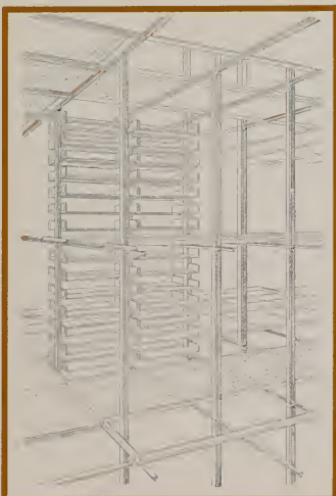
The "All Wrought" Bracket Shelf is made of steel, with front and back stiffly rolled, forming, with its two smooth steel-plate brackets, a solid metal unit, without intermediate part between itself and standard. It is hooked directly into the slotted openings in the standard by a stout lug on the back of bracket. Framing for intermediate floors is introduced as in the "Standard" stack. This construction is illustrated on opposite page.



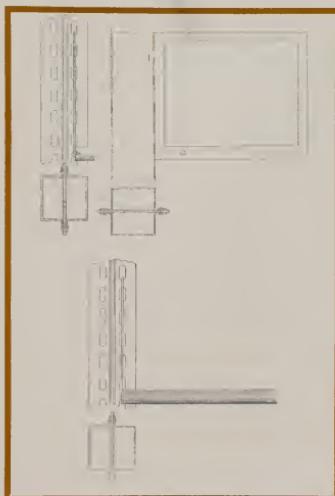
All Wrought Bracket Shelf in use.  
Medical Association Library, Boston, Mass.



"All  
Wrought"\*\*  
Bracket  
Stack.



Details of  
Framing.



Section  
Showing  
Adjustment.

Elevation of  
Shelf and  
Slotted  
Standard.

## METALLIC BOOK STACKS.

### ADVANTAGES OF THE "ALL WROUGHT" BRACKET SHELVING.

**I**T IS light and easily handled, or stored, having no cast-iron parts liable to breakage.

It is entirely smooth, being made in one piece, with brackets free from the rough inequalities of cast-iron or sharp openings offering wear to books and lodgment for dust.

It is the most durable, being built entirely of steel without loose parts.

It is the easiest adjusted, being hooked directly into the supporting standard.

It can be shifted by *any one*, requiring no tools or spirit level in its adjustment.

The levels being mathematically defined on supporting standards, absolutely level shelves are assured.

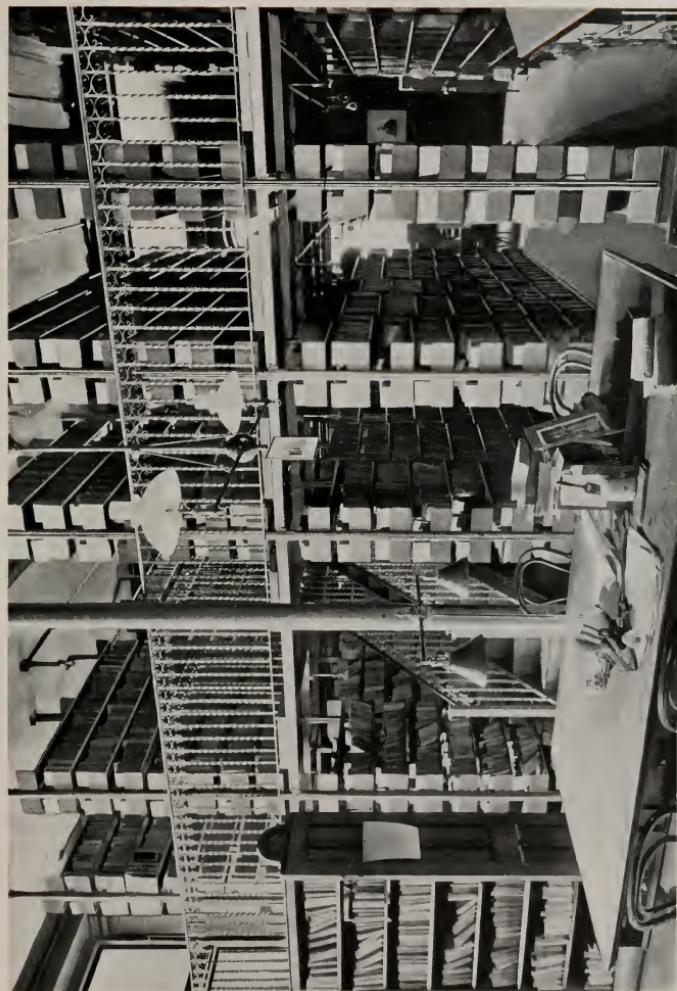
Its surfaces are finished in the best manner with a hard, durable, baked japan coating.

It is incombustible.

Bracket shelving should be entirely of metal. Wooden shelves attached to iron brackets have as many elements of weakness as there are separate parts between books and supporting standard. *Good* wooden shelves are no cheaper than steel, particularly if well finished. The processes of securing anything like a surface that can be washed indefinitely and will not absorb dust is much more expensive in wood than in metal. In fact, Metal Shelves are now specified almost exclusively for all large stack rooms.



Wallace Library and Art Building,  
Fitchburg, Mass.  
Henry M. Francis, Architect.



"ALL WROUGHT" BRACKET STACK, FITCHBURG, MASS.

## EXAMPLES OF METALLIC STACK WORK.

### CARNEGIE FREE LIBRARY, ALLEGHENY, PA.

THE beautiful library building illustrated below is one of the noted Pittsburgh group, erected, through the liberality of Mr. Carnegie, at an expense of \$350,000. We have supplied the stack work for a large number of Carnegie libraries in various parts of the country, and we illustrate on page 51 a portion of a *complete* equipment furnished for that at Covington, Ky. This includes not only the stack work but most of the miscellaneous furniture as well; card index cases, desks, etc.

A view of one of the stacks in the Allegheny building is illustrated opposite. It shows our "All Wrought" Bracket Stack, built entirely of steel, with intermediate floor of iron and glass.

Fitchburg, Mass., in its new Wallace Library and Art Building, contains another fine example of the same type of stack. Massachusetts leads all the other States in the number of Free Public Libraries, and the above is a representative example of the attractive buildings to be found in many of her cities.

The Newark, N. J., Public Library, in the annex of its handsome new building, is also supplied with a fine example of the "All Wrought" Bracket Shelving. As shown in illustration, it is built of a more ornamental type, being fitted with attractive panelled ends, molded cornices, and fine gallery and rail work.



Carnegie Free Library, Allegheny, Pa.  
John Smithmeyer and Paul Z. Feltz, Architects.



Annex,  
Newark,  
N. J.



Carnegie  
Library,  
Allegheny,  
Pa.



Public  
Library,  
Fitchburg,  
Mass.

## EXAMPLES OF METALLIC STACK WORK.

### COLLEGE LIBRARIES. COLUMBIA UNIVERSITY LIBRARY SEMINAR ROOMS.

THE new library building of Columbia University, New York, is widely known for the stately beauty of its exterior and its very complete interior appointments. The stack rooms (three) were planned with special reference to their practical utility, being directly connected with a series of study or seminar rooms, a view of which is shown. Each room can be isolated from those adjacent by sliding doors and devoted to lecture or study purposes, the books in each department being grouped in the stack alcoves connecting with it. The stack is our "Standard" type and is built in the most solid and finished manner. An example of this is shown in the finish of the ends, which are made in one piece from solid rolled plates, fifteen feet long, and designed to harmonize with the simple and dignified treatment of the rooms.

### OTHER COLLEGE LIBRARIES.

Among a considerable number of college libraries in which our steel shelving is in use may be mentioned: Harvard University; Van Wormer Library, Cincinnati University; Franklin Institute, Philadelphia; Starr Library, Middlebury College, Middlebury, Vt.; University of Wooster, Wooster, Ohio, etc. The new Starr Library Building at Middlebury, Vt., contains a very complete two-story "Standard" stack. The work shown in Harvard University is of a different construction from any shown, being our patent "hip washer" adjustment. This will be found both serviceable and convenient in cases used largely for storage or for very heavy books.



Columbia University Library, New York.  
McKim, Mead & White, Architects.



Seminar  
Rooms  
Columbia  
University,  
New York.



Steel  
Shelving,  
Harvard  
University.



Stack,  
Middlebury  
(Vt.) College.

## EXAMPLES OF METALLIC STACK WORK.

### WORK IN CAPITOLS.

NATIONAL and State Capitols, in their construction and equipment, represent what is most worthy and permanent in the architectural and mechanical arts. The wide adoption of our work in these structures is a significant testimony to its character.

#### NATIONAL CAPITOL, WASHINGTON, D. C.

The question of fireproof equipment for the above building has recently received the careful attention of officials in charge, particularly since the explosion and fire occurring on November 6, 1898. Regarding its damage, the *Democrat and Chronicle* reports: "The loss on Library and Records can be scarcely estimated. One million dollars could not replace them." Since that time we have refitted many of the restored rooms with our Metallic Fixtures, particularly those of the Supreme Court, which suffered most. Over seventy-five thousand dollars' worth of our Steel Fixtures have since been substituted for wood in this building. We present an illustration of a part of this equipment, that supplied for the well-known library of the Senate of the United States.

Law Libraries, in Association, County and Municipal buildings, with their valuable collections, have very largely utilized our non-combustible stack work.

*The Association of the Bar, New York City*, have their stack rooms equipped with our Metallic Shelving of a special pattern suited to the uniform nature of their volumes. A view of same is shown on opposite page.

Cambridge, Mass., in the fine new County Law Library, has a unique and attractive equipment of our "All Wrought" Bracket Stack, also illustrated herewith.



National Capitol, Washington, D. C.  
Thomas Ustick Walter, Architect.



Steel  
Shelving.  
Senate  
Library,  
National  
Capitol.



Stack,  
County Law  
Library,  
East Cam-  
bridge, Mass.



Stack,  
Bar  
Association  
Library,  
New York  
City.

## EXAMPLES OF METALLIC STACK WORK.

### STATE LIBRARIES.

**T**HE Massachusetts State House at Boston, Mass., contains one of the most complete and elegant equipments ever manufactured by us.

It includes two very large metallic book stacks, having a capacity of 200,000 volumes, the fixtures for the large newspaper room, one of the most complete in the United States, and the fine case and counter work in the beautiful reading room. We present several views of the latter, which in design and workmanship have never been excelled in this country. The work is built of hand-wrought rolled plate, with pilasters, molding and ornament in finely executed real bronze. The bases are built of choice Italian marble. The finish is a warm olive.

The Counter Work illustrates the adaptability of metal for cabinet work having curved fronts. The plates are simply rolled to the proper curves, the panels being cut from the solid sheets. All danger of checking and opening of joints is entirely absent.

The Massachusetts State House, illustrated below, has been extended and entirely rebuilt, involving an expense of some Five Million Dollars. It contains One Hundred and Fifty Thousand Dollars worth of our metallic fixtures, whose design and workmanship has been worthy of illustration and notice in some of the most prominent technical journals of the country.

Librarians concerned in the selection of Card Index Drawers may be interested to know that the above equipment includes the casework for the most complete and extensive card index system ever installed. It contains some 5,000 Card Index Drawers, having a capacity of over 7,000,000 cards.

Boston library buildings erected since the introduction of our stack work have almost exclusively adopted metallic shelving. These include the Massachusetts Historical Society Library, the Boston Medical Association Library, Library in new Congregational Building, etc.



Massachusetts State House Extension, Boston, Mass.  
Charles Brigham, Architect.



Delivery Counter.



Ornamental Book Cases.



Entrance to Stacks.

## EXAMPLES OF METALLIC STACK WORK.

### STATE LIBRARIES.

**K**ANSAS is among the States possessing a large and well-equipped State Library. That at Topeka has, among its "up-to-date" features, finely arranged stack rooms furnished with our "Standard" steel stacks. The State Historical Library is also equipped with our metallic shelving.

From Maine to Kansas signifies but partially the wide distribution of our work. It will be found in all parts of the United States and abroad as well. The metallic shelving shown in the illustration has been in use in the State Library at Augusta for the past ten years. It is to-day in as good condition as when placed. Librarians seeking information as to the practical utility of the steel shelf will do well to investigate such points as the above. The new Lithgow Memorial Library in the same city is also furnished with a fine type of our "Standard" stack, built from special designs.

The Ohio Capitol Building at Columbus has recently been extensively remodeled and enlarged with the provision of very handsome quarters for the Supreme Court Library. It is equipped with our "Standard" stack construction, of an ornamental character, a view of which is shown.

All of the above buildings contain large amounts of our Metallic Cabinet work for Record Rooms, whose use is now almost universal where important documents are stored.



State House, Topeka, Kas.  
J. G. Haskell, Architect.



"Standard"  
Stack, State  
Library,  
Topeka,  
Kas.



"Standard"  
Stack,  
Supreme  
Court  
Library,  
Columbus,  
Ohio.



Steel Stack,  
State  
Library,  
Augusta  
Me.

METALLIC STACK WORK—STATE LIBRARIES.

## EXAMPLES OF METALLIC STACK WORK.

### STATE LIBRARIES.

**M**ADISON, Wis., has one of the finest Library Buildings in the West, that recently erected for the State Historical Library. It is equipped in the most complete and substantial manner, the stack construction being our "Standard" type. There are three stacks, each two stories high. We offer a view on one of the floors, having alcoves and Metallic Library Tables for reference use.

No feature of our product more characteristically represents its careful workmanship than our stair and grill work. Even in the plainest designs it is distinguished by neatness and finish and without the rough features found in ordinary iron work.

The ornamental wrought rail and stair work in the above library is very attractive in design and finish, a glimpse of which may be seen on opposite page.

Electric Book Lifts are now very generally adopted in larger libraries, and we have supplied some very complete outfits of this character. Some of the enclosures and metallic cars are very attractive, and may be noticed in the illustration presented.



State Historical Library, Madison, Wis.  
Ferry & Clas, Architects.



First Floor  
of Stacks.



Stair and  
Rail Work,  
Madison.



Electric  
Book Lift  
and  
Enclosure.

## EXAMPLES OF METALLIC LIBRARY CASE WORK.

### NEWSPAPER ROOMS.

**A** MODERN department that has grown rapidly in all Libraries is that for newspapers. As the files accumulate the necessity for their preservation in permanent form becomes apparent. To the contemporary student the newspaper files are of the first moment. A recognition of their importance is shown in the increased space in Public Libraries devoted to their use. Bound and filed flat on steel roller shelves, in steel cases, ensures both preservation and convenient handling.

#### NEWSPAPER ROOM, CHICAGO PUBLIC LIBRARY.

We illustrate a typical equipment for newspapers furnished the above library. It consists of a series of mammoth steel cases, conveniently disposed for ready reference in the large newspaper room. These cases are fitted with our Patented Roller Book Shelves of a special reinforced pattern for this particular use. The front edges of all uprights are guarded by revolving vertical rollers and the books approaching cases come in contact only with smooth revolving surfaces, reducing the wear upon them to the minimum.

#### KANSAS CITY, MO., PUBLIC LIBRARY.

The new Public Library at the latter place, erected by the enterprise of its citizens, is one of which any city may be proud. It is completely equipped with our "Standard" stack construction, having a fine four-story all metal stack of this type, Ornamental Reference Cases and Newspaper Cabinets.

#### IOWA STATE LIBRARY, DES MOINES, IA.

A complete equipment for the new State Library at the above place includes our "Standard" Book Stack, Steel Cases for newspapers, etc., an illustration of which is shown opposite.

One of the largest equipments for newspapers ever built in this country is that furnished by us for the Massachusetts State Library, at Boston. It contains one of the most important collections in the United States, and the fixtures were supplied at an expense of some Ten Thousand Dollars.



State Hall of History, Des Moines, Ia.  
Smith & Gutterson, Architects.



Newspaper  
Room,  
Chicago  
Public  
Library.



Newspaper  
Cases, State  
Library,  
Des Moines,  
Ia.



Newspaper  
Room,  
Kansas  
City Public  
Library.

METALLIC NEWSPAPER CASES.

## EXAMPLES OF SPECIAL METALLIC LIBRARY FIXTURES.

THE "Business Stack" shown below, in the New York Life Insurance Building, New York, is a type of a large amount of special work manufactured by us of this class. Placed in a room not designed to receive such extremely heavy loads, it was necessary to provide special construction to meet the unusual conditions. The upper half of stack is suspended from a reinforced ceiling above, the lower half bearing on the floor below; the union of the two parts is concealed in the floor framing. The building mentioned contains over Seventy-five Thousand Dollars' worth of our Metallic Fixtures.

The Fairhaven, Mass., Library work is further illustrated in a view showing method of gallery framing. It is ceiled in white Italian marble set in bronze frames. All the framing, curved gallery facias, etc., are wrought-steel work, hand framed. The floor above is iron, covered with rubber matting set in panels in iron borders. The electric conduits are run concealed between the iron and marble.

Fine Book Case Work, with handsome ends and richly-molded cornices, is a large specialty with us. We illustrate two ends suggestive of the character of this work. One adapted for ornamental cases in Reading Room in Massachusetts State Library, finished in warm olive with old bronze ornamentation; the other in the English Patent Room, Chicago Public Library, treated in French gray, with pilasters, moldings and trim in dark nickel.

*Private Residences*, containing rare and valuable collections, find in our product the desired combination of security and elegance in interior fixtures. Built of steel and bronze, with marble bases and heavy plate-glass doors, and designed to harmonize with surrounding architectural treatment, they are suited to the richest interiors. Complete protection is afforded by concealed steel curtains, arranged to fall in front of glass doors, entirely encasing the books in solid steel in cases of emergency. Special designs are furnished upon application.



"Business" Stack, New York Life Insurance Co., New York.



Detail  
Gallery  
Framing,  
Fairhaven,  
Mass.



Ornamental  
End, State  
Library,  
Boston.



Ornamental  
End, Eng-  
le Patent  
Room,  
Chicago  
Public  
Library.

DETAIL OF METALLIC LIBRARY WORK.

## METALLIC FURNITURE FOR LIBRARIES.

**W**E manufacture in metal all forms of Desk, Furniture, Counter, and Case Work required for libraries. It is built to order, in design, finish, and color, harmonizing with the adjoining fixed work.

We offer only a few illustrations of this furniture, selected from work in use, and showing merely its varied character. Our Metallic Furniture Catalogue presents a more complete list.

*Desks* are built in all styles, from the large Roll Top to the small-sized type for assistant's use.

*Tables* range from the heavy styles required for Directors' Rooms to the plainest skeleton forms. The tops of these are covered with wood, glass, or leather. Metallic Furniture never gets rickety, is capable of the hardest wear, and can be readily moved.

*Racks* for magazines and newspapers, as made by us, are a distinct departure in this line. They are lighter, stronger, and more durable than those made of wood.

*Card Index Drawers* in metal present many advantages. They never stick, swell or shrink, are made absolutely true by steel dies, and are dust, fire, and vermin proof. They are built with suspension slides and accurately fitted. Described in special booklet.

*Trucks* in all forms, and built under our patents, have long been a leading feature with us. We issue a separate catalogue describing them.

*Metallic Cabinets* for librarians for filing papers, valuable manuscripts, etc., will be found both convenient and secure. Vaults in libraries may also be equipped with our Metallic Vault Fixtures.

*Librarians' Private Offices* may also be supplied with very attractive Book Cases, made in metal fitted with plate-glass doors.

We solicit the submission of floor plans and explanatory data, upon which we shall be glad to estimate for complete metallic furnishings for Libraries, presenting with our estimate, plans, cuts, and photographs illustrating the work.



Library Table, Secretary of State's Office, Boston, Mass.



Table,  
Carnegie  
Library,  
Covington,  
Ky.



Librarian's  
Case, Carnegie  
Library,  
Covington,  
Ky.



Card Index,  
Carnegie  
Library,  
Covington,  
Ky.



Metallic  
Roll Top  
Desk.



Metallic  
Periodical  
Case.



Metallic  
Book Case,  
Plate Glass  
Doors.



Metallic  
Double  
Desk.



Metallic  
Revolving  
Book Case.



Metallic  
Desk for  
Assistants.

Metallic  
Library  
Truck.



Metallic  
Vault  
Fixtures,  
Chicago  
Library.



Metallic  
Periodical  
Rack.



Metallic  
Newspaper  
Rack.



LEADING ADOPTIONS AND INDEX TO PAGES.  
EACH NAME AN INDORSEMENT.

STATE LIBRARIES.

	PAGE.	PAGE.	
Maine State Library, Augusta, . . . . .	42, 43	Iowa State Library, Des Moines, . . . . .	46, 47
Massachusetts State Library, Boston, . . . . .	40, 41	Kansas State Library, Topeka, . . . . .	42, 43
Ohio Law Library, Columbus, . . . . .	42, 43	Montana State Library, Helena, . . . . .	

SOCIETY LIBRARIES.

Massachusetts Historical Society Library, Boston, . . . . .		Kansas State Historical Library, Topeka, . . . . .	
Wisconsin State Historical Society Library, . . . . .		Boston Medical Association Library, Boston, Mass., . . . . .	30
Madison, . . . . .	44, 45	Congregational House Library, Boston, Mass., . . . . .	

COLLEGE LIBRARIES.

Columbia University Library, New York, N. Y., . . . . .	36, 37	Wooster University Library, Wooster, Ohio, . . . . .	
Cincinnati University Library, Cincinnati, Ohio, . . . . .		Allegheny College, Meadville, Pa., . . . . .	
Middlebury College Library, Middlebury, Vt., . . . . .	37	Franklin Institute Library, Philadelphia, Pa., . . . . .	

LAW LIBRARIES.

Association of the Bar, New York, N. Y., . . . . .	39	Association of the Bar, Philadelphia, Pa., . . . . .	18-23
U. S. Senate Library, Washington, D. C., . . . . .	39	U. S. Patent Office Library, Washington, D. C., . . . . .	

COUNTY LAW LIBRARIES.

Baltimore, Md., . . . . .		Danbury, Ct., . . . . .	
Galveston, Tex., . . . . .		York, Pa., . . . . .	
Binghamton, N. Y., . . . . .		Pittsburg, Pa., . . . . .	
Batavia, N. Y., . . . . .		Marion, Ohio, . . . . .	
Canandaigua, N. Y., . . . . .		East Cambridge, Mass., . . . . .	39

MEMORIAL LIBRARIES.

Carnegie Library, Allegheny, Pa., . . . . .	34, 35	Pierce Memorial, North Scituate, Mass., . . . . .	
Carnegie Library, Lincoln, Neb., . . . . .		Lithgow Memorial, Augusta, Me., . . . . .	
Carnegie Library, Fort Worth, Tex., . . . . .		Jenks Memorial, Conway, N. H., . . . . .	
Carnegie Library, Sandusky, Ohio, . . . . .		Swan Memorial, Albion, N. Y., . . . . .	
Carnegie Library, Covington, Ky., . . . . .	51	Case Memorial, Auburn, N. Y., . . . . .	
Carnegie Library, Emporia, Kan., . . . . .		James Memorial, Madison, N. J., . . . . .	26, 27
Carnegie Library, Dallas, Tex., . . . . .		Norman and Williams Memorial, Woodstock, Vt., . . . . .	
Millicent Memorial, Fairhaven, Mass., . . . . .	24, 25, 48, 49	Brumback Memorial, Van Wert, Ohio, . . . . .	
Morrill Memorial, Norwood, Mass., . . . . .	10, 28, 29	Olive-Raney Memorial, Raleigh, N. C., . . . . .	

PUBLIC LIBRARIES.

Chicago, Ill., . . . . .	8, 16, 17, 47, 48, 49, 54	Stonington, Ct., . . . . .	
Cleveland, Ohio, . . . . .		Massillon, Ohio, . . . . .	
Indianapolis, Ind., . . . . .		Erie, Pa., . . . . .	28, 29
Kansas City, Mo., . . . . .		Newark, N. J., Annex, . . . . .	35
Buffalo, N. Y., . . . . .	46	Burlington, Iowa, . . . . .	4, 26
Providence, R. I., . . . . .	28	Boone, Iowa, . . . . .	
New York, Wash. Heights, P. L., . . . . .	6, 7, 11, 12, 13, 14, 15	Dixon, Ill., . . . . .	
Baltimore, Md., Woodbury Br., . . . . .		Clinton, Me., . . . . .	
Holyoke, Mass., . . . . .		Clinton, Md., . . . . .	
Fitchburg, Mass., . . . . .	32, 33, 35	St. Joseph, Mo., . . . . .	
Wellesley, Mass., . . . . .		Jefferson City, Mo., . . . . .	
Westerly, R. I., . . . . .		Sydney, Australia, . . . . .	







